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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,850	03/09/2000	Ken-ichi Ohta	862.C1858	2932
5514	7590	12/28/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO			JONES, DAVID	
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2622

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/521,850

Applicant(s)

OHTA ET AL.

Examiner

David L Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 21, 23-33, 36 and 37 is/are rejected.
- 7) ☒ Claim(s) 9-20, 34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 7/9/04 was filed after the mailing date of the first action on the merits. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Amendment

2. The amendment filed on 7/9/04 has been entered and made of record. Claims 1-21, and 23-37 are pending, and claim 22 is canceled.

Response to Arguments

3. Applicant's arguments, see page 12, filed 7/9/04, with respect to the drawings have been fully considered and are persuasive. The objection of drawings has been withdrawn.

4. Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 9, 34-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. The language “determination means for determining the presence/absence of synthesis of the discriminated object with other objects”, as written is performing a determination of whether not a synthesis has been performed prior to the synthesis processes.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 6, 8, 21, 23-24, 30-33, and 36-37 rejected under 35 U.S.C. 102(b) as being anticipated by Bjorge et al. (US 5,295,236).

Regarding claim 1, Bjorge et al. (Bjorge) discloses an image processing apparatus comprising:

attribute information generation means (fig. 2, 210, postscript interpreter, column 4, lines 51-66) for generating attribute information indicating an attribute of an image in correspondence with a command that represents the image:

bitmap data generation means (fig. 2, 210, postscript interpreter, column 4, lines 51-66) for generating bitmap image data by rendering the command; and

attribute synthesis means (fig. 2, 214, trapping analyzer, column 4, lines 3-15) for, if first and second bitmap image data generated in accordance with first and second commands overlap each other, synthesizing attribute information at the overlapped position of the first bitmap image

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data and attribute information at the overlapped position of the second bitmap image data in accordance with a predetermined rule (column 3, lines 47-52); and

image processing means (fig. 1, 400, column 4, lines 16-24) for performing an image process on the bitmap image data in accordance with the attribute information.

Regarding claim 3, Bjorge discloses an image processing apparatus, wherein said bitmap data generation means (column 4, lines 16-21) generates bitmap image data by overwriting a rendered bitmap image.

Regarding claim 6, Bjorge discloses an image processing apparatus, wherein the predetermined rule (column 5, lines 61-68, and column 6, lines 1-6) is one of an AND, OR, overwrite priority, and background priority using the attribute information of the first bitmap image and the attribute information of the second bitmap image.

Regarding claim 8, Bjorge discloses (column 4, lines 51-66) an image processing apparatus, wherein the attribute information is generated for each pixel and has at least one of vector, character, and color attributes.

Regarding claim 21, Bjorge discloses an image processing apparatus for processing and outputting input image data comprising:

input means (desktop publishing system, fig.1, 100, column 3, lines 26-35) for inputting image data composed of a plurality of objects;

rendering means (postscript interpreter, 210, column 4, lines 51-66) for rendering the objects into bitmap image data;

generation means (postscript interpreter, 210, column 4, lines 51-66) for generating attribute map information indicating a configuration of the bitmap image data on the basis of the bitmap image data rendered by said rendering means and attributed of the objects; and

determination means (trapping analyzer, 214, column 4, lines 9-21) for determining a range of the bitmap image data, which is to undergo an image area discrimination of discriminating a character/line image region (column 3, lines 62-66), on the basis of the attribute map information generated by said generation means.

Regarding claim 23, Bjorge discloses an image processing apparatus for processing and outputting input image data wherein the attribute map information includes at least a vector flag and bitmap flag as shown in figure 7, it shows the actual flag data for both.

Regarding claim 24, Bjorge discloses an image processing apparatus for processing and outputting input image data wherein the attribute map information is generated in correspondence with two-dimensional coordinate positions of the bitmap image data as shown in figure 7, it shows the actual x and y coordinate data.

Regarding claim 30, Bjorge discloses (column 3, lines 58-61) an image processing apparatus for processing and outputting input image data wherein said determination means comprises image area separation means (step 206) for performing an image area separation process for bitmap image data.

Regarding claim 31, Bjorge discloses (column 3, lines 62-66) an image processing apparatus for processing and outputting input image data where said determination means updates the attribute map information on the basis of a processing result of said image area separation means.

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Regarding claim 32, the claim is analogous to claim 1.

Regarding claim 33, the claim is analogous to claim 1.

Regarding claim 36, the claim is analogous to claim 21.

Regarding claim 37, the claim is analogous to claim 21.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorge et al.

Regarding claim 26, Bjorge teaches (column 2, lines 23-55) an image processing apparatus and system for processing a document for printing. However, Bjorge teaches (column 4, lines 51-66) that when the bitmap image data is managed in units of R, G, and B planes, the attribute map information is managed as an attribute map plane and the data is either appended or overwritten to the planes (column 6, lines 23-31).

Regarding claim 27, Bjorge teaches (column 6, lines 23-31) an image processing apparatus for processing and outputting input image data wherein when R, G, and B data of the bitmap image data are managed in units of pixels, and it would have been obvious to one of ordinary skill in the art at the time the invention was made that the attribute map information is

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managed while being appended to each pixel. As taught by Bjorge the system can be altered to append the data rather than overwriting the data.

Regarding claim 28, Bjorge teaches (column 6, lines 23-31) an image processing apparatus for processing and outputting input image data wherein when R,G, and B planes of the bitmap image data are managed in units of pixels, and it would have been obvious to one of ordinary skill in the art at the time the invention was made that the attribute map information is managed while being appended to pixels of one or a plurality of the R, G, and B planes. As taught by Bjorge the system can be altered to append the data rather than overwriting the data. And that since the data is divided into the different planes of C, M, Y, and K, the data from each plane can be either appended or overwritten depending on the user.

Regarding claim 29, Bjorge teaches (column 6, lines 23-31) an image processing apparatus for processing and outputting input image data wherein when R,G, and B data of the bitmap image data are managed in units of pixels, and it would have been obvious to one of ordinary skill in the art at the time the invention was made that the attribute map information is managed while being appended to color information of one or a plurality of R, G, and B data in units of pixels. As taught by Bjorge the system can be altered to append the data rather than overwriting the data.

11. Claims 2, 4-5, and 7, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorge et al. as applied to claims 1, 3, 6, 8, 21, 23-24, 26-33, and 36-37 above, and further in view of Shimizu et al. (US 5,483,361).

Regarding claim 2, Bjorge teaches (column 2, lines 23-55) an image processing apparatus and system for processing a document for printing. However, Bjorge does not explicitly detail that the image process is a resolution converting process.

Whereas, Shimizu et al. (Shimizu) teaches that within the black character correcting circuit (fig. 8, #80, column 5, lines 25-59) includes a selector 83, that outputs a signal E1', which is sent to the comparator (fig. 9, #81) the comparator outputs a 0 for low resolution and a 1 for high resolution, which would function as a resolution converting process.

At the time of the invention, it would have been obvious to one skilled in the art to combine the resolution converting process as taught by Shimizu with the system of Bjorge.

The suggestion/motivation for doing so would have been to allow for a change in resolution being sent to the printer.

Therefore, it would have been obvious to combine Bjorge et al. with Shimizu et al. to obtain the invention as specified in claim 2.

Regarding claim 4, Bjorge teaches (column 2, lines 23-55) an image processing apparatus and system for processing a document for printing. However, Bjorge does not explicitly detail that the image process is a least one of a dither and an under cover removal process.

Shimizu teaches that in column 5, lines 29-33, that the CMYK calculating circuit (fig. 7, #81) includes therein a circuit for converting R, G and B signals into Ye, M and C signals, a color masking circuit, and a circuit for performing a UCR process and outputting the black (Bo) signal. And in column 8, lines 13-26, that in FIG. 11 shows the black character correcting circuit using a binarization process that includes a dither processing circuit 104 performs a known dither

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process if only the output of the printer line number generating circuit 103 is 0, and it passes the inputted signal without processing it if the output of the circuit 103 is 1.

Regarding claim 5, Bjorge teaches (column 2, lines 23-55) an image processing apparatus and system for processing a document for printing. However, Bjorge does not explicitly detail that the image process is one of a filter and compression process.

Shimizu teaches (column 3, lines 23-31) that the CCD 1 includes a mosaic filter for filtering into the separate R, G, and B signals at the color-separation circuit.

Regarding claim 7, Bjorge teaches (column 2, lines 23-55) an image processing apparatus and system for processing a document for printing. However, Bjorge does not explicitly detail one of laser print means and inkjet print means.

Shimizu teaches (fig. 12, column 5, lines 60-63) that the image forming apparatus is a laser printer.

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorge et al. as applied to claims 1-24 above, and further in view of Andresen et al.(US 5,659,407).

Regarding claim 25, Bjorge teaches (column 2, lines 23-55) an image processing apparatus and system for processing a document for printing. However, Bjorge does not explicitly detail that the said generation means comprises an attribute map memory for storing the generated attribute map information.

Whereas, Andresen teaches an image processing apparatus wherein the

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attribute map information (pixel map or frame buffer) column 4, lines 36-56, each section of the frame buffer comprises a pixel map having a storage location for each pixel in the image to be generated with reference to color.

Bjorge and Andresen are analogous art because they both are from the same field of endeavor, image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the memory of Andresen with the system of Bjorge.

The suggestion/motivation for doing so would have been to provide the ability for the three color component values for a pixel to be stored together as three contiguous bytes in the memory.

Therefore, it would have been obvious to combine Andresen et al. with Bjorge et al. to obtain the invention as specified in claim 25.

Allowable Subject Matter

13. Claims 9-20, and 34-35 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

14. The following is a statement of reasons for the indication of allowable subject matter:

As detailed in claim 9, *first synthesis means for synthesizing objects in accordance with the determination result and second synthesis means for synthesizing object type information of objects discriminated by said discrimination means and processing means for appending object type information synthesized by second synthesis*

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means to a rendering result obtained by rendering the object to be rendered in units of pixels.

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L Jones whose telephone number is (703) 305-4675. The examiner can normally be reached on M- F (6:30am-4:00pm) off alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David L. Jones



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